

## PRIMARY SOURCES OF INFORMATION

<p><b>CCSP Goal 1:</b> Improve knowledge of the Earth's past and present climate and environment, including its natural variability, and improve understanding of the causes of observed variability and change.</p>	
<b>CCSP 1.1</b>  	<p><i>Temperature Trends in the Lower Atmosphere: Steps for Understanding and Reconciling Differences</i></p> <p>Thomas R. Karl, NOAA; Susan J. Hassol, STG Inc.; Christopher D. Miller, NOAA; William L. Murray, STG Inc.</p>
<b>CCSP 1.2</b>  	<p><i>Past Climate Variability and Change in the Arctic and at High Latitudes</i></p> <p>Richard B. Alley, Pennsylvania State Univ.; Julie Brigham-Grette, Univ. of Massachusetts; Gifford H. Miller, Univ. of Colorado; Leonid Polyak, Ohio State Univ.; James W.C. White, Univ. of Colorado; Joan J. Fitzpatrick, USGS</p>
<b>CCSP 1.3</b>  	<p><i>Re-Analysis of Historical Climate Data for Key Atmospheric Features: Implications for Attribution of Causes of Observed Change</i></p> <p>Randall M. Dole, Martin P. Hoerling, Siegfried Schubert, NOAA</p>
<p><b>CCSP Goal 2:</b> Improve quantification of the forces bringing about changes in the Earth's climate and related systems.</p>	
<b>CCSP 2.1</b>  	<p><i>Part A: Scenarios of Greenhouse Gas Emissions and Atmospheric Concentrations</i>  <i>Part B: Global-Change Scenarios: Their Development and Use</i></p> <p>Leon E. Clarke, James A. Edmonds, Hugh M. Pitcher, Pacific Northwest National Lab.; Henry D. Jacoby, MIT; John M. Reilly, MIT; Richard G. Richels, Electric Power Research Institute; Edward A. Parson, Univ. of Michigan; Virginia R. Burkett, USGS; Karen Fisher-Vanden, Dartmouth College; David W. Keith, Univ. of Calgary; Linda O. Mearns, NCAR; Cynthia E. Rosenzweig, NASA; Mort D. Webster, MIT; John C. Houghton DOE/Office of Biological and Environmental Research</p>
<b>CCSP 2.2</b>  	<p><i>The First State of the Carbon Cycle Report (SOCCR)</i>  <i>North American Carbon Budget and Implications for the Global Carbon Cycle</i></p> <p>Anthony W. King, ORNL; Lisa Dilling, Univ. of Colorado/NCAR; Gregory P. Zimmerman, ORNL; David Fairman, Consensus Building Institute Inc.; Richard A. Houghton, Woods Hole Research Center; Gregg Marland, ORNL; Adam Z. Rose, Pennsylvania State Univ. and Univ. Southern California; Thomas J. Wilbanks, ORNL</p>
<b>CCSP 2.3</b>  	<p><i>Atmospheric Aerosol Properties and Climate Impacts</i></p> <p>Mian Chin, NASA; Ralph A. Kahn, NASA; Stephen E. Schwartz, DOE/BNL; Lorraine A. Remer, NASA/GSFC; Hogbin Yu, NASA/GSFC/UMBC; David Rind, NASA/GISS; Graham Feingold, NOAA/ESRL; Patricia K. Quinn, NOAA/PMEL; David G. Streets, DOE/ANL; Philip DeCola, NASA HQ; Rangasayi Halthore, NASA HQ/NRL</p>
<b>CCSP 2.4</b>  	<p><i>Trends in Emissions of Ozone-Depleting Substances, Ozone Layer Recovery, &amp; Implications for Ultraviolet Radiation Exposure</i></p> <p>A.R. Ravishankara, NOAA; Michael J. Kurylo, NASA; Christine Ennis, NOAA/ESRL</p>

<b>CCSP Goal 3:</b> Reduce uncertainty in projections of how the Earth's climate and related systems may change in the future.	
<b>CCSP 3.1</b> Climate Models	<i>Climate Models: An Assessment of Strengths and Limitations</i>  David C. Bader and Curt Covey, Lawrence Livermore National Lab.; William J. Gutowski Jr., Iowa State Univ.; Isaac M. Held, NOAA/GFDL; Kenneth E. Kunkel, Illinois State Water Survey; Ronald L. Miller, NASA/GISS; Robin T. Tokmakian, Naval Postgraduate School; Minghua H. Zhang, State Univ. of New York Stony Brook; Anjuli S. Bamzai, U.S. DOE
<b>CCSP 3.2</b> Climate Projections	<i>Climate Projections Based on Emissions Scenarios for Long-Lived and Short-Lived Radiatively Active Gases and Aerosols</i>  Hiram Levy II, NOAA/GFDL; Drew Shindell, NASA/GISS; Alice Gilliland, NOAA /ARL; M. Daniel Schwarzkopf, NOAA/GFDL; Larry W. Horowitz, NOAA/GFDL; Anne M. Waple, STG Inc.
<b>CCSP 3.3</b> Extremes	<i>Weather and Climate Extremes in a Changing Climate: Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands</i>  Thomas R. Karl, NOAA; Gerald A. Meehl, NCAR; Christopher D. Miller, NOAA; Susan J. Hassol, STG Inc.; Anne M. Waple, STG Inc.; William L. Murray, STG Inc.
<b>CCSP 3.4</b> Abrupt Climate Change	<i>Abrupt Climate Change</i>  John P. McGeehin, USGS; John A. Barron, USGS; David M. Anderson, NOAA; David J. Verardo, NSF; Peter U. Clark, Oregon State Univ.; Andrew J. Weaver, Univ. of Victoria; Konrad Steffen, Univ. of Colorado; Edward R. Cook, Columbia Univ.; Thomas L. Delworth, NOAA; Edward Brook, Oregon State Univ.
<b>CCSP Goal 4:</b> Understand the sensitivity and adaptability of different natural and managed ecosystems and human systems to climate and related global changes.	
<b>CCSP 4.1</b> Sea-Level Rise	<i>Coastal Sensitivity to Sea-Level Rise: A Focus on the Mid-Atlantic Region</i>  James G. Titus, U.S. EPA; K. Eric Anderson, USGS; Donald R. Cahoon, USGS; Dean B. Gesch, USGS; Stephen K. Gill, NOAA; Benjamin T. Gutierrez, USGS; E. Robert Thieler, USGS; S. Jeffress Williams, USGS
<b>CCSP 4.2</b> Ecosystem Thresholds	<i>Thresholds of Climate Change in Ecosystems</i>  Daniel B. Fagre, USGS; Colleen W. Charles, USGS
<b>CCSP 4.3</b> Impacts	<i>The Effects of Climate Change on Agriculture, Land Resources, Water Resources and Biodiversity in the United States</i>  Peter Backlund, NCAR; Anthony Janetos, PNNL/Univ. of Maryland; David Schimel, National Ecological Observatory Network; Margaret Walsh, USDA
<b>CCSP 4.4</b> Ecosystem Adaptation	<i>Preliminary Review of Adaptation Options for Climate-Sensitive Ecosystems and Resources</i>  Susan Herrod Julius, U.S. EPA; Jordan M. West, U.S. EPA; Jill S. Baron, USGS and Colorado State Univ.; Linda A. Joyce, USDA Forest Service; Brad Griffith, USGS; Peter Kareiva, The Nature Conservancy; Brian D. Keller, NOAA; Margaret Palmer, Univ. of Maryland; Charles Peterson, Univ. of North Carolina; J. Michael Scott, USGS and Univ. of Idaho
<b>CCSP 4.5</b> Energy	<i>Effects of Climate Change on Energy Production and Use in the United States</i>  Thomas J. Wilbanks, ORNL; Vatsal Bhatt, Brookhaven National Lab.; Daniel E. Bilello, National Renewable Energy Lab.; Stanley R. Bull, National Renewable Energy Lab.; James Ekmann, National Energy Technology Lab.; William C. Horak, Brookhaven National Lab.; Y. Joe Huang, Mark D. Levine, Lawrence Berkeley National Lab.; Michael J. Sale, ORNL; David K. Schmalzer, Argonne National Lab.; Michael J. Scott, Pacific Northwest National Lab.

	<i>Analyses of the Effects of Global Change on Human Health and Welfare and Human Systems</i>
	Janet L. Gamble, U.S. EPA; Kristie L. Ebi, ESS LLC.; Anne E. Grambsch, U.S. EPA; Frances G. Sussman, Environmental Economics Consulting; Thomas J. Wilbanks, ORNL
	<i>Impacts of Climate Variability and Change on Transportation Systems and Infrastructure -- Gulf Coast Study</i>
	Michael J. Savonis, Federal Highway Administration; Virginia R. Burkett, USGS; Joanne R. Potter, Cambridge Systematics
<b>CCSP Goal 5:</b> Explore the uses and identify the limits of evolving knowledge to manage risks and opportunities related to climate variability and change.	
	<i>Uses and Limitations of Observations, Data, Forecasts, and Other Projections in Decision Support for Selected Sectors and Regions</i>
	John Haynes, NASA; Fred Vukovich, SAIC; Molly K. Macauley, RFF; Daewon W. Byun, Univ. of Houston; David Renne, NREL; Gregory Glass, Johns Hopkins School of Public Health; Holly Hartmann, Univ. of Arizona
	<i>Best Practice Approaches for Characterizing, Communicating and Incorporating Scientific Uncertainty in Climate Decision Making</i>
	M. Granger Morgan, Dept. of Engineering and Public Policy, Carnegie Mellon Univ.; Hadi Dowlatabadi, Inst. for Resources, Environment and Sustainability, Univ. of British Columbia; Max Henrion, Lumina Decision Systems; David Keith, Dept. of Chemical and Petroleum Engineering and Dept. of Economics, Univ. of Calgary; Robert Lempert, The RAND Corp.; Sandra McBride, Duke Univ.; Mitchell Small, Dept. of Engineering and Public Policy, Carnegie Mellon Univ.; Thomas Wilbanks, Environmental Science Division, ORNL
	<i>Decision Support Experiments and Evaluations using Seasonal-to-Interannual Forecasts and Observational Data: A Focus on Water Resources</i>
	Nancy Beller-Simms, NOAA; Helen Ingram, Univ. of Arizona; David Feldman, Univ. of California; Nathan Mantua, Climate Impacts Group, Univ. of Washington; Katharine L. Jacobs, Arizona Water Institute; Anne M. Waple, STG Inc.
Other Assessments Referenced	
	<i>Working Group I - Climate Change 2007: The Physical Science Basis</i>
	Susan Solomon, Dahe Qin, Martin Manning, Zhenlin Chen, Melinda Marquis, Kristen B. Averyt, Melina M.B. Tignor, Henry LeRoy Miller, Jr.
	<i>Working Group II - Climate Change 2007: Impacts, Adaptation and Vulnerability</i>
	Martin L. Parry, Osvalda F. Canziani, Jean P. Palutikof, Paul J. van der Linden, Clair E. Hanson
	<i>Working Group III - Climate Change 2007: Mitigation of Climate Change</i>
	Bert Metz, Ogunlade R. Davidson, Peter R. Bosch, Rutu Dave, Leo A. Meyer
	<i>Special Report on Emissions Scenarios</i>
	Nebojsa Nakicenovic, Robert Swart

	<i>Climate Change and Water</i>
	Bryson Bates, Zbigniew W. Kundzewicz, Shaohong Wu, Jean P. Palutikof
	<i>Potential Impacts of Climate Change on U.S. Transportation</i>
	Henry G. Schwartz, Jr., Alan C. Clark, G. Edward Dickey, George C. Eads, Robert E. Gallamore, Genevieve Giuliano, William J. Gutowski, Jr., Randell H. Iwasaki, Klaus H. Jacob, Thomas R. Karl, Robert J. Lempert, Luisa M. Paiewonsky, S. George H. Philander, Christopher R. Zepplie
	<i>Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change</i>
	Jerry M. Melillo, Anthony C. Janetos, Thomas R. Karl, Eric J. Barron, Virginia Rose Burkett, Thomas F. Cecich, Robert W. Corell, Katharine L. Jacobs, Linda A. Joyce, Barbara Miller, M. Granger Morgan, Edward A. Parson, Richard G. Richels, David S. Schimel
	<i>Impacts of a Warming Arctic, Arctic Climate Impact Assessment</i>
	Robert W. Corell, Susan J. Hassol, Pål Prestrud, Patricia A. Anderson, Snorri Baldursson, Elizabeth Bush, Terry V. Callaghan, Paul Grabhorn, Gordon McBean, Michael MacCracken, Lars-Otto Reiersen, Jan Idar Solbakken, Gunter Weller

## ACRONYMS AND ABBREVIATIONS

<b>ARS:</b>	Agricultural Research Service	<b>NOAA:</b>	National Oceanic and Atmospheric Administration
<b>CCSP:</b>	Climate Change Science Program	<b>NRCS:</b>	Natural Resources Conservation Service
<b>CIESIN:</b>	Center for International Earth Science Information Network	<b>NSIDC:</b>	National Snow and Ice Data Center
<b>CIRES:</b>	Cooperative Institute for Research in Environmental Sciences	<b>NWS:</b>	National Weather Service
<b>CMIP:</b>	Coupled Model Intercomparison Project	<b>NWFSC:</b>	Northwest Fisheries Science Center
<b>DOE:</b>	Department of Energy	<b>PISCO:</b>	Partnership for Interdisciplinary Studies of Coastal Oceans
<b>EIA:</b>	Energy Information Administration	<b>PLJV:</b>	Playa Lakes Joint Venture
<b>IARC:</b>	International Arctic Research Center	<b>SAP:</b>	Synthesis and Assessment Product
<b>IPCC:</b>	Intergovernmental Panel on Climate Change	<b>SRH:</b>	Southern Regional Headquarters
<b>NASA:</b>	National Aeronautics and Space Administration	<b>USACE:</b>	United States Army Corps of Engineers
<b>NASS:</b>	National Agricultural Statistics Service	<b>USBR:</b>	States Bureau of Reclamation
<b>NAST:</b>	National Assessment Synthesis Team	<b>USDA:</b>	United States Department of Agriculture
<b>NCDC:</b>	National Climatic Data Center	<b>U.S. EPA:</b>	United States Environmental Protection Agency
<b>NESDIS:</b>	National Environmental Satellite, Data, and Information Service	<b>USFS:</b>	United States Forest Service
		<b>USGS:</b>	United States Geological Survey